

**APPENDIX D
TO CONSENT DECREE**

**OU4, OU8, and OU10
Operations and Maintenance Plan
California Gulch Superfund Site
May 2008**

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1.0 INTRODUCTION

This plan describes the procedures for performance of operations and maintenance (O&M) within Operable Units 4, 8 and 10 of the California Gulch Superfund Site. The purpose of this plan is to ensure that the completed remedial action work and controls continue to function as constructed. Activities to be performed as part of the O&M process are described in the following sections. Section 2.0 discusses the specific items to be inspected in Operable Units (OU) 4, 8, and 10; Section 3.0 discusses the inspection and maintenance and performance standards; and Section 4.0 discusses the inspection and maintenance reporting.

2.0 DESCRIPTION OF REMEDIAL WORK AND CONTROLS

The following subsections describe the remedial work, controls, and their intended purposes in OU4, OU8 and OU10. The controls in OU4, OU8, and OU10 generally consist of surface water structures consisting of diversion channels, reconstructed channels, channel bank riprap, flow/sediment check structures, revegetation, and regraded and covered waste rock and tailing materials. The as-built details of the controls are presented in the following:

- Completion Report for Upper California Gulch Operable Unit 4 (MWH and MFG, 2003),
- Completion Report for Lower California Gulch Operable Unit 8 (MWH and MFG, 2003), and
- Final RA Completion Report for Oregon Gulch Operable Unit 10 (SMI and TerraMatrix, 1999).

Diversion channels and reconstructed channels outside of California Gulch are designed to convey either the 100-year, 24-hour or 100-year, 2-hour precipitation event (whichever is larger) and reconstructed channels in California Gulch are designed to convey either the 500-year, 24-hour or 500 year, 2-hour precipitation event (whichever is larger). The OU10 seep collection system is designed to capture and either drain or pump toe seepage or shallow alluvial groundwater present at the toe of the Oregon Gulch tailing facility to the Oregon Gulch pumphouse for transfer and treatment at the Yak water treatment plant.

2.1 Operable Unit 4

Operable Unit 4 is commonly referred to as “Upper California Gulch” and is shown on Figure 1. Operable Unit 4 is defined as the area hydrologically drained by California Gulch from the headwaters of the gulch to immediately upstream of the Yak Tunnel Portal. The operable unit has been subdivided into six areas consisting of:

- 1) Garibaldi sub-basin,
- 2) Whites Gulch sub-basin,
- 3) Nugget Gulch sub-basin,
- 4) AY-Minnie,
- 5) Iron Hill, and
- 6) Fluvial Tailing Site 4 (Reconstructed Stream Channel 4) and South area.

Remedial work within this operable unit consisted of diversion channels, reconstruction of existing channels, revegetation, and stabilization of channels and waste rock piles.

2.1.1 Reconstructed Stream Channel 4 (RSC-4)

As shown on Figures 2 through 5, reconstructed stream channel #4 consists of approximately 1.5 miles along California Gulch from approximately the Yak Tunnel Portal to the upstream end of the Printer Girl mine site (Fluvial Tailing Site 4 and South Area sub-basin). This channel is composed of a concrete channel, channel bank riprap, channel margin revegetation and riprap check structures. The purposes of these controls include: (1) to reduce erosion or remobilization of tailing materials, (2) reduce potential metal leaching from fluvial tailing materials, (3) maintain channel conveyance capacity through engineered remedies , and (4) maintain channel integrity by promoting non-erosive flow.

The concrete channel segments were designed and constructed to convey the peak flow from the 500-year, 24-hour storm event. Channel depths generally range from 3.4 to 5.3 feet in the upper section and from 2.9 to 5.5 feet in the lower section. Channel bank riprap was designed and constructed to provide bank stabilization. Particular channel margin segments were revegetated to stabilize soils, sediments or tailing materials within the channel margins through the emergence and establishment of vegetative cover. Riprap check structures were designed and constructed to reduce sediment loading within the channel and to promote non-erosive channel flow.

2.1.2 AY-Minnie

The AY-Minnie waste rock pile (UGC-81) is located where California Gulch and Nugget Gulch intersect on the lower hillside of the south facing slope (AY-Minnie sub-basin) and is shown on Figure 6. The controls at this site consist of concrete/riprap channel AYC-1, AYC-1/Nugget Gulch riprap check structures (gabion baskets), concrete channel AYC-2, AYC-2 culvert, and AYC-2/California Gulch stilling basin. The purpose(s) of these controls include: (1) to divert water around the AY-Minnie waste rock pile, (2) reduce erosion or remobilization of waste rock materials, (3) reduce potential metal leaching from waste rock materials, (4) maintain channel conveyance capacity through sediment load reduction controls, and (5) maintain channel integrity by promoting non-erosive flow.

Diversion channel AYC-1 was designed and constructed to convey the peak flow from the 100-year, 24-hour storm event and diversion channel AYC-2 was designed and constructed to convey the peak flow from the 100-year, 2-hour storm event. Channel AYC-1 consists of approximately 1192 feet of concrete lined channel and 428 feet of riprap lined channel. Channel AYC-2 is a concrete lined channel that is approximately 583 feet long.

Channel AYC-1 has a depth of approximately 0.9 feet in the concrete lined section and 1.0 to 1.3 feet in the riprap lined section. The base width of the concrete lined portion of AYC-1 generally ranges from 1.0 to 1.1 feet and the side slopes of the concrete portion of the channel range from approximately 0.8:1 to 1.1:1 and slopes on the riprap portion range from 1.4:1 to 2.7:1.

Channel AYC-2 ranges in depth from approximately 0.8 to 1.8 feet. The base of AYC-2 varies in width from approximately 0.9 feet in the upstream portion to 1.1 feet in the down stream section. Side slopes of this channel range from approximately 0.8:1 to 0.9:1.

Riprap check structures and the stilling basin were designed and constructed to reduce sediment loading within the channel and to promote non-erosive channel flow. The AYC-2 culvert was designed to convey flow under County Road 2 to California Gulch and prevent damage to the road.

2.1.3 North Mike

The North Mike waste rock pile (UCG-85) is located in the Nugget Gulch sub-basin on the hill slope east of the North Moyer and Moyer mine areas. The North Mike is shown on Figure 7. This waste rock pile was removed and placed on the Colorado Number 2 waste rock pile. The controls at this site consist of revegetation of the area where the waste rock pile was removed and a buttress wall which was designed and constructed to stabilize the toe of the slope. The purpose of these controls is to prevent erosion and stabilize the hillside.

2.1.4 Colorado Number 2

The Colorado Number 2 waste rock pile (UCG-71) is located in the Nugget Gulch sub-basin, just below the topographic divide that separates Nugget Gulch and Stray Horse Gulch. As shown on Figure 8, the controls at this site consist of regrading and covering the waste rock pile, establishing revegetation along the toe of the waste rock pile and providing riprap Channel NGC-

3. The purposes of these controls include: (1) to divert water around the Colorado Number 2 waste rock pile, (2) reduce erosion or remobilization of waste rock materials, (3) reduce potential metal leaching from waste rock materials, (4) promote positive drainage from the waste rock pile, and (5) stabilize the toe of the waste rock pile.

Diversion channel NGC-3 was designed and constructed to convey the peak flow from the 100-year, 24-hour and 100-year, 2-hour storm events. Channel NGC-3 consists of subchannels NGC-3A which is approximately 201 feet long, NGC-3B which runs for approximately 254 feet, and NGC-3C which is approximately 140 feet long. Both sub-channels NGC-3A and -3B are riprap lined and NGC-3C is erosion control block lined.

Channel NGC-3A ranges in depth from approximately 0.4 feet on the upstream side to 0.6 feet on the downstream portion with side slopes of the channel ranging from approximately 3.7:1 to 11.7:1. Channel NGC-3B ranges in depth from approximately 0.5 feet on the upstream side to 0.7 feet on the downstream portion with side slopes of the channel ranging from approximately 3.5:1 to 7.8:1. Channel NGC-3 has a depth of approximately 0.7 feet over its length. The base of NGC-3 ranges from approximately 1.1 feet on the upstream side to 1.7 feet on the downstream portion with side slopes of the channel ranging from approximately 2.0:1 to 2.6:1.

2.1.5 Nugget Gulch

Nugget Gulch is the primary channel for the watershed that contains the Colorado #2 and North Mike waste rock piles. The controls at this location, shown on Figure 7, consist of block Channel NGC-5 and margin/bank, Channel NGC-5 culverts, concrete Channel NGC-1, and NGC-1 culvert. The purposes of these controls include: (1) reduce erosion or remobilization of sediments, (2) maintain channel integrity by promoting non-erosive flow, (3) maintain integrity of the North Mike buttress wall, and (4) prevent erosion/damage to roadways through the use of culverts.

Channels NGC-1 and NGC-5 were designed and constructed to convey the peak flow from the 100-year, 2-hour storm event. Concrete lined Channel NGC-1 is approximately 618 feet long, and block lined channel NGC-5 runs for approximately 171 feet. Channel NGC-1 has an approximate channel depth that ranges from 1.3 to 1.4 feet, a base that ranges from approximately 1.0 to 1.4 feet wide, and side slopes that range from 1.1:1 to 1.4:1. Channel

NGC-5 has an approximate channel depth that ranges from 1.6 to 1.8 feet, a base that is approximately 1.2 feet wide, and side slopes that range from 1.3:1 to 2.0:1.

Channel NGC-1 was designed to convey flow past the toe of the North Mike and prevent erosion of the buttress wall and slope toe. The culvert at the end of NGC-1 and the culvert near the center of NGC-5 was designed and constructed to convey flow under and prevent damage to dirt roads within the area.

2.1.6 Printer Girl

As shown on Figure 9, the Printer Girl waste rock pile (UCG-92A) is located in the lower reach of the Whites Gulch sub-basin, approximately 700 feet upstream of County Road #2. The controls at this location consist of Channel RSC-5, rock gabion drop structures, Channel PGC-1, Channel PGC-1 culvert, Channel PGC-2, and Channel PGC-2 culvert. The purposes of these controls include: (1) to divert water around and off of the Printer Girl waste rock pile, (2) reduce erosion or remobilization of waste rock materials, (3) reduce potential metal leaching from waste rock materials, (4) maintain channel conveyance capacity through sediment load reduction controls, and (5) maintain channel integrity by promoting non-erosive flow.

Diversion channels PGC-1 and -2 were designed and constructed to convey the peak flow from the 100-year, 24-and 100-year, 2-hour storm events. The PGC-1 and -2 culverts were constructed to convey flow under and prevent damage to the dirt road.

Channel PGC-1 consists of approximately 227 feet of concrete lined channel. Channel PGC-1 ranges in depth from approximately 0.7 feet on the upstream side to 1.6 feet on the downstream portion. The base of PGC-1 is approximately 1.1 feet wide and the side slopes of the channel range from approximately 0.4:1 to 1.1:1.

Channel PGC-2 is a riprap lined channel that is approximately 230 feet long, the upper portion of this channel has a geosynthetic clay liner (GCL) under the riprap. Channel PGC-2 ranges in depth from approximately 1.4 feet on the upstream side to 1.2 feet on the downstream portion. The base of PGC-2 ranges from approximately 3.4 feet wide on the upstream portion to 2.0 feet wide on the downstream section. The side slopes of the channel range from approximately 0.9:1 to 1.6:1.

Rock gabion check structures were designed and constructed in the riprap lined channel RSC-5 to reduce sediment loading within the channel and to promote non-erosive channel flow. Channel RSC-5 varies in depth from approximately 0.8 to 1.9 feet over the reconstructed length. The base of RSC-5 ranges from approximately 5.4 feet wide on the upstream portion to 12.1 feet wide on the downstream section. The side slopes of the channel range from approximately 1.3:1 to 2.8:1.

2.1.7 Agwalt

The Agwalt waste rock pile (UCG-104) is shown on Figure 10 and is located in the upper reach of the Whites Gulch sub-basin. The controls at this location consist of concrete Channel A, concrete Channel B, and the portal collection pipe outlet. The purpose(s) of these controls include: (1) to divert water around and off of the Agwalt waste rock pile, (2) reduce erosion or remobilization of waste rock materials, (3) reduce potential metal leaching from waste rock materials, and (4) minimize channel discharge erosion by promoting non-erosive flow.

Diversion channels A and B were designed and constructed to convey the peak flow from the 100-year, 24-hour storm events. Both of these channels are concrete lined and have energy dissipating concrete aprons at the channel outlet. Channel A is approximately 330 feet long and Channel B extends for approximately 359 feet. Channel A has a depth of approximately 1.1 feet and Channel B has depths that range from approximately 0.7 to 0.9 feet. The base of both ditches is approximately 1-foot wide and the sides of the ditches are at 1:1 slopes. The portal collection system consists of a 20 foot long, 6-inch HDPE pipe, located in the portal, which conveys flows into a concrete sump; an 8-inch HDPE pipe which is approximately 290 feet long, is connected to the sump and conveys portal water downstream of the waste rock pile.

2.1.8 Garibaldi

The Garibaldi sub-basin (UGC-109A) and Garibaldi (UCG-121) are located in the upper reach of California Gulch and are shown on figures 11 and 12, respectively. The Garibaldi sub-basin (UGC-109A) controls consist of concrete Channel GWC-1, concrete Channel GWC-2, culvert 1, and Channel RSC-1. The purposes of these controls include: (1) to divert water around the Garibaldi sub-basin waste rock pile, (2) reduce erosion or remobilization of waste rock materials, (3) reduce potential metal leaching from waste rock materials, (4) maintain channel conveyance

capacity through sediment load reduction controls, and (5) maintain channel integrity by promoting non-erosive flow.

For the Garibaldi sub-basin, diversion channel GWC-1 was designed to convey the peak flow from the 100-year, 24-hour storm event and diversion channel GWC-2 was design to convey the peak flow from the 100-year, 2-hour storm event. Both channels GWC-1 and -2 are concrete lined. Channel GWC-1 is approximately 533 feet long, has channel depths that range from approximately 0.8 to 0.9 feet, a base that is approximately 1 foot wide, and side slopes that range from 1:1 to 1.3:1. Channel GWC-2 is approximately 402 feet in length, has an approximate channel depth of 1.2 feet, a base that is approximately 1 foot wide, and side slopes that range from 0.9:1 to 1.3:1. The culvert at the end of GWC-1 and -2 was designed to convey flow under and prevent damage to the dirt road. Rock gabion check structures at RSC-1 were designed and constructed to reduce sediment loading within the channel and to promote non-erosive channel flow.

The Garibaldi (UGC-121) controls consist of vegetated Ditch 1, concrete Ditch 2, concrete Ditch 3, concrete Ditch 4, and portal collection pipe outlet. The purposes of these controls include: (1) to divert water around and off the Garibaldi waste rock pile, (2) reduce erosion or remobilization of waste rock materials, and (3) reduce potential metal leaching from waste rock materials.

The Garibaldi diversion Ditches 2, 3, and 4 were designed and constructed to convey the peak flow from the 100-year, 24-hour storm event. Vegetated Ditch 1 is a preexisting diversion ditch and is located on the southeast side of the Garibaldi waste rock pile. Ditches 2, 3, and 4 are concrete lined. Ditch 2 is approximately 190 feet long and has an approximate depth of 1 foot. Ditches 3 and 4 are each approximately 720 feet in length. Ditch 3 ranges in depth from approximately 1.3 feet on the upstream side to 2.3 feet on the downstream portion. Ditch 4 ranges in depth from approximately 2.4 to 2.6 feet over its length. The base of all three ditches is approximately 1 foot wide and the sides of the ditches are at 1:1 slopes. The portal collection system consists of a 20 foot long, 6-inch HDPE pipe, located in the portal, which conveys flows into a concrete sump; a 6-inch HDPE pipe, which is approximately 160 feet long, is connected to the sump and conveys portal water into Ditch 4.

2.1.9 Mab

The Mab (UCG-12) is located in the upper reach of the Iron Hill sub-basin drainage, on the Northeast slope of Carbonate Hill and is shown on Figure 13. The controls at this site consist of a waste rock pile regrading, covering, and toe revegetation. The purposes of these controls include: (1) reduce erosion or remobilization of waste rock materials, (2) reduce potential metal leaching from waste rock materials, (3) promote positive drainage from the waste rock pile, and (4) stabilize the toe of the waste rock pile.

2.2 Operable Unit 8

Operable Unit 8 is commonly referred to as “Lower California Gulch” and is shown on Figure 14. Operable Unit 8 is defined as the 500-year floodplain of California Gulch from immediately below the Yak Tunnel Water Treatment Plant to the point of the confluence of the California Gulch with the Arkansas River, including the Colorado Zinc-Lead Tailing (USEPA, 2000). Remedial work within this operable unit consisted of reconstruction and stabilization of selected reaches of California Gulch, reinforcement of stream banks, removal of the CZL tailings, removal of stream sediment and fluvial tailing, and revegetation.

2.2.1 FTS-6

Fluvial Tailing Site #6 consisted of reconstructing the historic California Gulch Channel and abandoning the elevated channel between the OU1 channel on the upper end and the Apache Tailing Impoundment channel on the lower end. The controls at this site consist of the reconstructed California Gulch channel, erosion resistant vegetated overbanks, and channel transitions from OU1 and Apache Tailing Impoundment. The purpose(s) of these controls include: (1) to reduce erosion or remobilization of tailing/waste rock materials, (2) reduce potential metal leaching from tailing/waste rock materials, and (3) maintain channel integrity by promoting non-erosive flow.

Reconstructed channel FTS-6 was designed and constructed to convey the peak flow from the 500-year, 24-hour storm event. The FTS-6 channel is rock mattress lined. Selected channel margin segments were regraded and revegetated to stabilize soils, sediments, waste rock or

tailing materials within the channel margins through the emergence and establishment of vegetative cover.

2.2.2 FTS-3

Fluvial Tailing Site #3 consisted of reconstructing a portion of California Gulch Channel that extends from the downstream side of the County Road 6 intersection with California Gulch to approximately 1000 feet upstream of where Georgia Gulch enters the California Gulch channel. The controls at this site consist of the reconstructed California Gulch channel, placement of channel bank riprap at three areas, and revegetation. The purpose(s) of these controls include: (1) to reduce erosion or remobilization of sediments and tailing material, (2) maintain channel conveyance capacity through sediment load reduction controls, and (3) maintain channel integrity by promoting non-erosive flow.

Reconstructed channel FTS-3 was rock mattress lined and designed and constructed to convey the peak flow from the 500-year, 24-hour storm event. Selected channel margin segments were revegetated to stabilize soils, sediments, or tailing materials within the channel margins through the emergence and establishment of vegetative cover. Three sections were reinforced with riprap which was sized to be stable under the 500-year, 24-hour storm event. Riprap was placed over a non-woven geotextile at or above the 500-year storm event water elevation

2.2.3 California Gulch Near Ski Club

This reinforced stream bank section of California Gulch extends from downgradient of the Ski Club to where California Gulch crosses under Highway 24. This section of California Gulch had historic breaches of a berm on the north side of the channel. Remedial work at this site included widening the stream channel, regrading the existing berm, and placing filter fabric and riprap on the regraded embankment. The purpose of these controls include: (1) to reduce erosion or mobilization of sediments and (2) maintain channel conveyance capacity through sediment load reduction.

The widened portions of the channel in the reinforced sections were designed and constructed to convey the peak flow from the 500-year, 24-hour storm event. Riprap used in the reinforced

sections was placed over a non-woven geotextile and was sized to be stable under the 500-year, 24-hour storm event.

2.2.4 FTS-1

Fluvial Tailing Site #1 consists of tailing and alluvial/tailing adjacent to California Gulch. Work at this site consisted of regrading the existing tailing, reinforcing the stream side of the tailing, and revegetation of the top of the regraded tailing. The purposes of these controls include: (1) to reduce erosion or remobilization of sediments and tailing material, and (2) maintain channel conveyance capacity through sediment load reduction controls.

Riprap used to reinforce and stabilize the tailing was sized to be stable under the 500-year, 24-hour storm event. Riprap was placed over a non-woven geotextile at or above the 500-year storm event water elevation.

2.2.5 FTS-2

Fluvial Tailing Site #2 consists of tailing and alluvial/tailing adjacent to California Gulch. Work at this site consisted of regrading the north bank, stabilizing the stream bed through the construction of berms, reinforcing the stream banks adjacent to OU5 and the CZL tailing area, and revegetation. The purposes of these controls include: (1) to reduce erosion or remobilization of sediments and tailing material, and (2) maintain channel conveyance capacity through sediment load reduction controls.

Riprap used to reinforce and stabilize the tailing was sized to be stable under the 500-year, 24-hour storm event. Riprap was placed over a non-woven geotextile at or above the 500-year storm event water elevation.

2.2.6 California Gulch Near Airport Gulch

This reinforced stream bank section of California Gulch extends from the southeast side of the A-V Smelter Site to where California Gulch crosses under Highway 24. This section of California Gulch had historic breaches of a berm on the north side of the channel. Remedial work at this site included widening or removing sediment from the stream channel, regrading the existing berm, and reinforcing the regraded embankment. The purposes of these controls include:

(1) to reduce erosion or mobilization of sediments, and (2) maintain channel conveyance capacity through sediment load reduction.

The widened portions of the channel in the reinforced sections were designed and constructed to convey the peak flow from the 500-year, 24-hour storm event. Riprap used in the reinforced sections was placed over a non-woven geotextile and was sized to be stable under the 500-year, 24-hour storm event.

2.2.7 FTS-8

This section of channel extends from where California Gulch crosses under Highway 24 to the confluence with the Arkansas River. Remedial work at this site included filling in and revegetation of tailing removal areas, removing sediment from the stream channel, regrading and reinforcing an existing berm, and the construction of new berms along unstable braided reaches. The purposes of these controls include: (1) to reduce erosion or remobilization of sediments and tailing, (2) reduce the potential for leaching metals from tailing, (3) maintain channel conveyance capacity through sediment load reduction, and (4) maintain channel integrity by promoting non-erosive flow.

The reinforced sections were designed and constructed to convey the peak flow from the 500-year, 24-hour storm event. Riprap used in the reinforced sections was placed over a non-woven geotextile and was sized to be stable under the 500-year, 24-hour storm event. Selected channel segments were revegetated to stabilize soils, sediments, or tailing materials within the channel margins through the emergence and establishment of vegetative cover.

2.2.8 Non-Residential Soils

Several non-residential soil areas which historically had poor or fair vegetation were defined along California Gulch. Remedial work on Non-Residential Soil Areas 1, 2, 3, 4, and 5 consisted of regrading the areas, applying soil amendments, and revegetating the areas. The purposes of these controls include reducing erosion, ponding, leaching and airborne transportation of soil particles.

2.3 Operable Unit 10

Operable Unit 10 is commonly referred to as “Oregon Gulch” and is shown on Figure 15. Operable Unit 10 is defined as the 500-year floodplain of Oregon Gulch from its headwaters to the confluence with California Gulch (USEPA, 1997). Remedial work within this operable unit consisted of removal of stream sediment and tailing from lower Oregon Gulch, reconstruction and stabilization of selected reaches of Oregon Gulch, reinforcement of stream banks, stabilization of the Oregon Gulch Tailing impoundment, construction of diversion channels, installation of a seep collection system, and revegetation.

2.3.1 Tailing Impoundment

Oregon Gulch Tailing impoundment is a tailing impoundment consisting of mill tailing from the Resurrection mill and material from cleanup of other sites located within the California Gulch CERCLA site. The Oregon Gulch Tailing impoundment is shown on Figure 16. The remedial work at this site consisted of regrading the top of the tailing impoundment, placing a cover over the impoundment, and revegetation of the cover. The purpose of these controls include: (1) reduce erosion or remobilization of tailing material, (2) reduce potential metal leaching from tailing materials, (3) promote positive drainage from the tailing impoundment, and (4) stabilize the toe of the impoundment.

The cover for the top of the tailing impoundment consists of a geosynthetic infiltration barrier, geocomposite drainage layer, followed by an 18-inch soil layer. The cover for the tailing embankment consists of a reinforced geosynthetic infiltration barrier, geocomposite drainage layer, and an 18-inch rock layer. The cover was designed to be erosionally stable under the 100-year, 24-and 100-year, 2-hour storm events.

2.3.2 Diversion Ditches and Channels

As shown on figures 15 and 16, four diversion ditches/channels were constructed or reconstructed to prevent run-on to the Oregon Gulch Tailing Impoundment. These ditches/channels consist of the Upper Oregon Gulch Channel, East Diversion Ditch, South Diversion Ditch, and Drop Channel. The purpose(s) of these controls include: (1) to divert water around and off of the tailing impoundment, (2) reduce erosion or remobilization of tailing

materials, (3) reduce potential metal leaching from tailing materials, (4) maintain channel conveyance capacity through sediment load reduction controls, and (5) maintain channel integrity by promoting non-erosive flow.

All four diversion ditches/channels were designed and constructed to convey flows from the 100-year, 24-hour and 100-year, 2-hour storm events. The East Diversion Ditch is approximately 1075 feet long, has a depth that ranges from approximately 0.1 to 0.8 feet, and side slopes range from approximately 9:1 to 416:1. The East Diversion Ditch was constructed with an underlying GCL and drainage layer. Approximately 1700 feet of 4-inch perforated pipe was installed on top of the drainage layer to convey water to the South Diversion Ditch. A second 4-inch perforated pipe was installed for the last 500 feet of the East Diversion Ditch to increase the flow capacity. Filter fabric and soil were placed over the drainage layer and the ditch was revegetated.

The reconstructed Upper Oregon Gulch Channel is approximately 455 feet long, has a depth that ranges from approximately 0.5 to 0.9 feet, and top width that ranges from approximately 5.3 to 6.6 feet. The Upper Oregon Gulch Channel was constructed with an underlying GCL and an 8-inch filter material layer that extended upstream approximately 100 feet from the intersection of the South and East Diversion Ditches. The remaining upstream portion of channel was constructed with a filter material layer placed over excavated subgrade. Both portions of the channel had a filter fabric placed over the filter layer and erosion control blocks installed over the fabric.

The South Diversion Ditch is approximately 930 feet long, has a depth that ranges from approximately 0.8 to 1.4 feet, a base width that ranges from 1.9 to 5.0 feet, and side slopes that range from approximately 1.7:1 to 6.9:1. A groundwater interceptor trench was installed in the upper portion of this channel. The interceptor trench was excavated to a depth of approximately 6 feet and a width of 3 feet. The trench was lined with filter fabric and a 30-foot long high density polyethylene pipe was installed, which daylights in the ditch. The trench was backfilled with gravel which was covered with filter fabric. The South Diversion Ditch was constructed with an underlying GCL, a 6-inch filter material layer, and a top riprap layer. At the downstream portion of the South Diversion Ditch, three berms were constructed to contain flow within the channel. Two of the berms are constructed of compacted borrow material, and the third is along

the upstream face reinforced with riprap overlying filter fabric. A gabion check dam was also installed in the lower portion of this channel.

The Drop Channel is approximately 700 feet long, has a depth that ranges from approximately 0.7 to 0.9 feet, and a top width that ranges from 4.6 to 6.8 feet. The channel is constructed of erosion control blocks overlying filter fabric. At the confluence of the Drop Channel with Lower Oregon Gulch, a riprap outlet apron was installed.

2.3.3 Seep Collection System

The Oregon Gulch seep collection system consists of a toe drain seep collection system and a shallow alluvial groundwater interceptor trench near the toe of the tailing dam. The seep collection system is shown on Figure 16 and the interceptor trench is shown on Figure 17. The toe drain seep collection system was installed at the base of the tailing to capture water that historically surfaced at the toe of the tailing dam. Water captured by the drain is piped to a holding tank in the pumphouse. The shallow alluvial groundwater interceptor trench was installed down gradient of the pumphouse and water captured by this trench is pumped back to the holding tank in the pumphouse. Water contained in the pumphouse holding tank is pumped to the Surge Pond at the Yak Water Treatment Plant, where it is treated and discharged to California Gulch. A secondary holding tank in the pumphouse provides for emergency overflow from the primary holding tank in case of pump failure. The purpose of these systems and controls is to reduce the quantity of poor quality alluvial groundwater and seep water entering lower Oregon Gulch.

High-level water sensors installed in the pumphouse holding tank and in one of the vertical pipes of the alluvial groundwater interceptor trench actuate an alarm at the Yak Water Treatment Plant to provide notice of an abnormally high water level in the pumphouse tank or in the trench, so necessary maintenance or repair actions can be undertaken. Maintenance or repair actions typically performed are related to either pump repair/replacement or a pipeline blockage due to scale build-up within the pipeline or an ice blockage. The holding tank pump and trench pump are maintained in inventory at the Yak Water Treatment Plant. In the event a pump requires replacement, a new pump is ordered to replenish the inventory stock. If a pipeline blockage

occurs, the pipeline section is either cleaned out with a sewer snake or jetted with hot water to clear the blockage.

Flow and pumping rates are seasonally variable with base flow rates averaging approximately 0.5 to 1.0 gallon per minute and spring season or storm event flows averaging approximately 3 to 10 gallons per minute. Flow and pumping rates will be maintained to maximize water collection within the seepage collection systems and interceptor trench and to preclude visible seepage expressions or saturated bog conditions within the area of the collection systems

The toe drain seep collection system was constructed in 1998 and 1999. The collection system was constructed by excavating a trench, installing filter fabric at the base of the trench, and placing approximately 320 feet of collector pipe on the filter fabric. The trench was then backfilled with drainage gravel which was covered with filter fabric and covered with compacted borrow material. The borrow material was covered with a geomembrane which was installed below a GCL. Initially the collector pipe discharged to a concrete ditch, the ditch was replaced with a buried outlet pipe to allow year around operation.

In June of 2006, the shallow alluvial groundwater interceptor trench was installed approximately 50 feet down gradient of the pump house. The alluvial groundwater collection system was constructed by excavating a trench to a depth of approximately 7 feet, installing a PVC liner at the base of the trench, backfilling the trench with washed drainage gravel and then covering the gravel with a PVC liner. The top PVC liner was covered with 1.5 feet to 2.5 feet of soil. Two slotted vertical PVC pipes were installed in the center of the trench at depths between 8 feet and 9 feet below ground surface. Pumps are installed in the vertical pipes to pump water collected in the trench to the pumphouse holding tank.

Monitoring well OG1TMW3 was installed in August 1991. It was drilled to a depth of 19.6 feet and screened in shallow alluvium from 9.2 to 19.2 feet below ground surface (bgs). The purpose of well OG1TMW3 is to monitor shallow alluvial groundwater.

2.3.4 Reconstructed Channel

The reconstructed channel of lower Oregon Gulch extends from the toe of the tailing impoundment to the confluence with California Gulch and is shown on Figure 15. The channel

reconstruction is designed to: (1) reduce infiltration of surface water and minimize leaching of metals from sediments, (2) reduce erosion and mobilization of sediments, (3) maintain channel integrity by promoting non-erosive flow, and (4) maintain channel conveyance capacity through sediment load reduction controls.

The channel and overbanks were designed and constructed to be stable under the 500-year storm event. The riprap portion of the Oregon Gulch channel was designed and constructed to convey flows from the 10-year storm event with the overbank constructed to be stable for the 500-year event. An approximate 500 feet reach of upstream of County Road 6 was constructed to convey the 500-year event within the riprap. The channel has a lower limestone layer covered with a filter fabric which is overlain by riprap.

The portion of channel, which extends from the pumphouse to the confluence with the Drop Channel, is approximately 465 feet long and has depths ranging from approximately 1 to 1.4 feet. On this portion of the channel, erosion control matting was installed on both sides of the channel.

2.3.5 Access Road Gates

Permanent access gates were installed on the North and South access roads to prevent unauthorized vehicle access to the Oregon Gulch tailing and pumpback facilities.

3.0 INSPECTION AND MAINTENANCE AND PERFORMANCE STANDARDS

Bi-annual (twice per year) inspections will be performed in late spring or early summer after snowmelt has occurred and in mid- to late fall. Certain controls at OU-10 will be inspected and recorded on a daily or weekly basis as described below. The following sub-sections present the inspection and maintenance and performance standards associated with the remedial work and controls listed in Section 2.0.

- *Concrete-Lined Channels:*
 - Inspection and Maintenance. Concrete-lined channels will be inspected for cracking, settling, sediment build up, capacity restriction, and adjacent erosional problems. Sediment and material in excess of one inch in depth will be removed. Quantities of sediment less than 10 cubic yards may be placed next to the channel, in areas that will minimize remobilization. Larger quantities of sediment that can not be placed adjacent to a channel will be placed adjacent to the rock covered Colorado No. 2 waste rock pile in OU4 or at other locations within the Site as approved by the EPA and the State. Cracks greater than one-quarter inch in width will be sealed or repaired. Damaged sections (that do not convey the design flow), will be repaired or replaced.
 - Performance Standard. Channels will be maintained to convey flows for the designed purpose(s) and as-built function(s) described in Section 2.
- *Culverts:*
 - Inspection and Maintenance. Culverts will be inspected for damage, capacity restriction, and adjacent erosional problems. Damaged culverts will be repaired or replaced. Erosion under or around the culverts will be repaired. Rock or sediment greater than two inches will be removed or flushed from culverts.
 - Performance Standard. Culverts will be maintained to convey flows for the designed purpose(s) and as-built function(s) described in Section 2.
- *Revegetated Channels and Ditches:*
 - Inspection and Maintenance. Revegetated channels will be inspected for erosion/scour, sediment collection, and vegetative cover. Sediment and material in excess of two inches in depth will be removed. Quantities of sediment less than 10 cubic yards may be placed next to the channel, in areas that will minimize remobilization. Larger quantities of sediment that can not be placed adjacent to a channel will be placed adjacent to the rock covered Colorado No. 2 waste rock pile in OU4 or at other locations within the Site as approved by the EPA and the State. Scour deeper than two inches below the base of the channel or rills and/or gullies on the channel sideslopes deeper than two inches in depth will be repaired.
 - Performance Standard. Channels will be maintained to convey flows for the designed purpose(s) and as-built function(s) described in Section 2.
- *Riprap-Lined Channels, Banks, and Berms:*

- Inspection and Maintenance. Riprap-lined channels, banks, and berms will be inspected for erosion and uniformity of rock placement and in the case of channels, capacity restriction. For channels, sediment and material in excess of two inches in depth above the top of the riprap will be removed. Quantities of sediment less than 10 cubic yards may be placed next to the channel, in areas that will minimize remobilization. Larger quantities of sediment that can not be placed adjacent to a channel will be placed adjacent to the rock covered Colorado No. 2 waste rock pile in OU4 or at other locations within the Site as approved by the EPA and the State. Areas in which riprap has been displaced to expose the channel, bank, or berm subgrade will be repaired with rock meeting the as-built specifications in the completion report and material restricting the channel capacity will be removed.
- Performance Standard. Channels will be maintained to convey flows for the designed purpose(s) and as-built function(s) described in Section 2.
- *Reno Mattress-Lined Channels and Gabion Structure:*
 - Inspection and Maintenance. Reno mattresses and gabions will be inspected for structural integrity. Damaged mattresses and baskets will be repaired. Erosion under or around the mattresses or gabions will be repaired.
 - Performance Standard. Channels will be maintained to convey flows for the designed purpose(s) and as-built function(s) described in Section 2.
- *Erosion Control Block-lined Channels.*
 - Inspection and Maintenance. Channels constructed using erosion control blocks will be inspected for eroded or broken blocks and erosion of the channel banks. Sediment and material in excess of one inch in depth above the top of the blocks will be removed. Quantities of sediment less than 10 cubic yards may be placed next to the channel, in areas that will minimize remobilization. Larger quantities of sediment that can not be placed adjacent to a channel will be placed adjacent to the rock covered Colorado No. 2 waste rock pile in OU4 or at other locations within the Site as approved by the EPA and the State. Damaged or eroded blocks which cause the channel subgrade to be exposed will be repaired or replaced with blocks meeting the as-built specifications in the completion report to maintain channel integrity.
 - Performance Standard. Channels will be maintained to convey flows for the designed purpose(s) and as-built function(s) described in Section 2.
- *Revegetated Areas.*
 - Inspection and Maintenance. Areas revegetated during remedial construction will be inspected for erosional stability and vegetative cover. Inspected areas will include channel banks, floodplains, non-residential soils, embankment toes, tailing and waste rock areas, as identified in Section 2. Erosion rills or gullies in excess of two inches deep in revegetated areas will be repaired. In addition, vegetative areas will be inspected for the presence of bareground areas. Areas void of or containing little vegetation which are larger in area than 100 ft² will be considered bareground areas. Identified bareground areas will be assessed for

agronomic conditions, and any necessary soil amendments identified by the agronomic assessment will be completed and the area will be reseeded during next spring or fall planting season.

- Performance Standard. Vegetated areas will be maintained for the intended purpose described in Section 2, by a) maintaining erosional stability of, and preventing migration of mine waste from, engineered remedies, b) maintain surface drainage on engineered remedies as designed, and c) ensuring vegetative cover as provided in Section 2.
- *Drains/Outlets.*
 - Inspection and Maintenance. Portal/interceptor drains and collection pipes will be inspected to ensure that they are free-flowing and that there is no observed flow emanating from the portal collection systems or interceptor drains other than the designed outlets.
 - Performance Standard. Drains and pipes determined to be obstructed or plugged will be cleared and will be maintained for the intended purposes as describe in Section 2.
- *OU 10 Toe Drain/Interceptor Trench Pumpback Systems.*
 - Inspection and Maintenance. Operational checks of the toe drain outlet pipe and the shallow alluvial groundwater interceptor trench at the base of the Oregon Gulch tailing dam will be conducted on a three times per week basis, unless circumstances (e.g., heavy snow, maintenance at other areas, etc) prevent such checks. These checks will include visible observation of flow from the toe drain outlet pipe into the holding tank and the operational status of the interceptor trench pumps, pumphouse tanks and pumphouse pumps. Flow rates from the toe drain outlet pipe and water pumped from the interceptor trench will be measured weekly. Seepage water collected in the pumphouse will be pumped to the Yak Water Treatment Plant for treatment and discharge to California Gulch.
 - Performance Standard. These facilities will be maintained to ensure they are operating for the designed purposes of the seep collection system, described in Section 2, by capturing and treating the toe seep and shallow alluvial groundwater collected in the Interceptor Trench.

Any abrupt or sudden decrease in flow from either the toe drain outlet pipe or the interceptor trench unrelated to precipitation/snowmelt events or seasonal variations will be investigated to determine if the toe drain and interceptor trench systems are functioning as designed. In addition, the area around the pumphouse and immediately (50 feet) down gradient of the toe drain collection system or interceptor trench will be checked for surface seeps, saturated soil conditions, or standing water on a weekly basis. Any surface seepage flow or saturated soil conditions observed emanating from the toe drain system or the shallow alluvial groundwater interceptor trench other than at the designed outlets will be investigated to determine the source of the flow. Should such conditions be observed, the conditions will be verbally reported to EPA and the State within 5 days, and further discussions included in the Monthly Progress Report for OU1.

- *Cover Rock on Non-Revegetated Waste Piles.*
 - Inspection and Maintenance. Cover rock will be inspected to ensure that it is intact and preventing erosion. Areas in which rock has been displaced that causes the cover subgrade to be exposed will be replaced with rock meeting the design specifications to maintain cover integrity. Erosion rills or gullies will be repaired.
 - Performance Standard. The cover rock will be maintained for the intended purpose described in Section 2, by a) maintaining erosional stability of, and preventing migration of mine waste on, engineered remedies, b) maintain surface drainage on engineered remedies as designed.

- *Sedimentation Basins.*
 - Inspection and Maintenance. Sedimentation basins/structures will be checked for capacity. Sediment accumulated greater than six inches in depth in a basin will be removed. Quantities of sediment less than 10 cubic yards may be placed next to sedimentation basins, in areas that will minimize remobilization. Larger quantities of sediment that can not be placed adjacent to a sedimentation basin will be placed adjacent to the rock covered Colorado No. 2 waste rock pile in OU4 or at other locations within the Site as approved by the EPA and the State.
 - Performance Standards. Sedimentation basins will be maintained for the intended purpose and as-built functions as described in Section 2.

- *Monitoring Well OG1TMW3.*
 - Inspection and Maintenance. Monitoring well OG1TMW3 will be sampled once yearly in September or October. The sample collected from OG1TMW3 will be analyzed for dissolved zinc and cadmium and the results will be reported in the annual inspection report. Increases in zinc or cadmium concentrations at monitoring well OG1TMW3 of greater than 20 percent compared to prior sampling period will be investigated to determine if the toe drain and interceptor trench systems are functioning as designed.
 - Performance Standards. Monitoring well will be maintained, or replaced if the well fails, to ensure continued effective monitoring of the shallow aquifer downgradient from the interceptor trench.

4.0 REPORTING AND DOCUMENTATION

A report will be prepared and submitted to Region 8 of the U.S. Environmental Protection Agency (EPA) and the Colorado Department of Public Health and Environment (CDPHE) prior to the end of each year (December 31) documenting the inspection and maintenance activities. The report will discuss the inspection and include: (1) completed copies of the inspection forms contained in Appendix B, (2) photographs of areas where inspections and maintenance were performed, and (3) maintenance activities performed. The daily/weekly checks and flow measurements for the OU-10 seep collection system will be summarized in the annual report.

Prior to undertaking a non-routine maintenance activity, a design and construction plan, including any investigation or analysis of the problem, will be prepared and submitted to the EPA and the State for approval. After the non-routine maintenance activity is completed, a completion report that documents the activities that were performed, construction as-built drawings and records (if applicable), and any planned maintenance activities will be submitted to EPA and the State. Non-routine maintenance activities are defined as activities that result in construction of a new control facility or modifications to an existing facility that alter or improve its original design or existing constructed condition.

All notices or other communications required under this plan shall be submitted to the following:

- Stan Christensen, U.S. EPA, Region 8

with a copy to:

- Doug Jamison, Colorado Department of Public Health & Environment

Any party may change its recipient notices under this Work Plan upon 10 days prior written notice to the other parties.

5.0 REFERENCES

- Montgomery Watson Harza and Shepherd Miller, Inc. (MWH/SMI), 1998. Final Construction Plan for Upper California Gulch Operable Unit 4. Prepared for Resurrection Mining Company. July.
- Montgomery Watson Harza and Shepherd Miller, Inc. (MWH/SMI), 2001. Construction Plan for Lower California Gulch Operable Unit 8. Prepared for Resurrection Mining Company. May.
- Montgomery Watson Harza and MFG, Inc. (MWH/MFG), 2003. Completion Report for Upper California Gulch Operable Unit 4. Prepared for Resurrection Mining Company. February.
- Montgomery Watson Harza and MFG, Inc. (MWH/MFG), 2003. Completion Report for Lower California Gulch Operable Unit 8. Prepared for Resurrection Mining Company. July.
- Shepherd Miller, Inc. and TerraMatrix (SMI/TMI), 1997. Final Focused Feasibility Study for Oregon Gulch Operable Unit 10. Prepared for Resurrection Mining Company. June.
- Shepherd Miller, Inc. and TerraMatrix (SMI/TMI), 1997. Draft Focused Feasibility Study for Lower California Gulch Operable Unit 8. Prepared for Resurrection Mining Company. September.
- Shepherd Miller, Inc. and TerraMatrix (SMI/TMI), 1997. Final Remedial Design Work Plan Oregon Gulch Operable Unit 10. Prepared for Resurrection Mining Company. October.
- Shepherd Miller, Inc. and TerraMatrix (SMI/TMI), 1998. Final Focused Feasibility Study for Upper California Gulch Operable Unit 4, Volume 1. Prepared for Resurrection Mining Company. January.
- Shepherd Miller, Inc. and TerraMatrix (SMI/TMI), 1998. Draft OU10 Remedial Action Work Plan. Prepared for Resurrection Mining Company. June 19.
- Shepherd Miller, Inc. and TerraMatrix (SMI/TMI), 1999. Final RA Completion Report for Oregon Gulch Operable Unit 10. Prepared for Resurrection Mining Company. November.
- U.S. Environmental Protection Agency (EPA), 1997. Record of Decision, Oregon Gulch Operable Unit 10, California Gulch Superfund Site. August.
- U.S. Environmental Protection Agency (EPA), 1998. Record of Decision, Oregon Gulch Operable Unit 4, California Gulch Superfund Site. March.
- U.S. Environmental Protection Agency (EPA), 2000. Record of Decision, Lower California Gulch Operable Unit 8, California Gulch Superfund Site. September.

APPENDIX A
TO OU4, OU8 AND OU10
OPERATIONS AND MAINTENANCE PLAN
INSPECTION FORMS

Resurrection Mining Company	OPERABLE UNIT 4 (OU4) INSPECTION AND MONITORING REPORT	
Date:		
Inspected By:		
Weather:		
General Notes/Comments:		
RSC-4		
1. Channel Concrete Integrity:		
Inspection/Performance Standard – Concrete-lined channel will be inspected for cracking, settling, sediment build up, capacity restriction, and adjacent erosional problems. Sediment and material in excess of one inch in depth will be removed. Cracks greater than one-quarter inch in width will be sealed or repaired. Damaged sections (that do not convey the design flow), will be repaired or replaced. Channel will be maintained to convey flow for the designed purpose(s) and as-built function(s) described in Section 2.		
2. Channel Overbank Riprap:		
Inspection/Performance Standard - Riprap-lined will be inspected for erosion and uniformity of rock placement and in the case of channels, capacity restriction. Areas in which riprap has been displaced to expose the bank subgrade will be repaired with rock meeting the as-built specifications in the completion report and material restricting the channel capacity will be removed. Channels will be maintained to convey flows for the designed purpose(s) and as-built function(s) described in Section 2.		
3. Channel Margin Revegetation – erosion/scour:		
Inspection/Performance Standard - Areas revegetated during remedial construction will be inspected for erosional stability and vegetative cover. Erosion rills or gullies in excess of two inches deep in revegetated areas will be repaired. In addition, vegetative areas will be inspected for the presence of bareground areas. Areas void of or containing little vegetation which are larger in area than 100 ft ² will be considered bareground areas. Identified bareground areas will be assessed for agronomic conditions, and any necessary soil amendments identified by the agronomic assessment will be completed and the area will be reseeded during next spring or fall planting season. Vegetated areas will be maintained for the intended purpose described in Section 2.		
4. Riprap Check Structures, Debris/Sedimentation:		
Inspection/Performance Standard – Sedimentation basins/structures will be checked for capacity. Sediment accumulated greater than six inches in depth in a basin will be removed. Sedimentation basins will be maintained for the intended purpose and as-built functions as described in Section 2.		
Suggested Maintenance:		
Maintenance Performed:		
Notes/Comments:		
Inspector's Signature _____		
Owner's Signature _____ Date _____		

Resurrection Mining Company	OPERABLE UNIT 4 (OU4) INSPECTION AND MONITORING REPORT
<u>AY-Minnie</u>	
1. Channel AYC-1 Concrete/Riprap Integrity, Sedimentation:	
<p>Inspection/Performance Standard – Concrete-lined portion of channel will be inspected for cracking, settling, sediment build up, capacity restriction, and adjacent erosional problems. Sediment and material in excess of one inch in depth will be removed. Cracks greater than one-quarter inch in width will be sealed or repaired. Damaged sections (that do not convey the design flow), will be repaired or replaced.</p> <p>Riprap-lined portion of channel will be inspected for erosion, uniformity of rock placement, and capacity restriction. Sediment and material in excess of two inches in depth above the top of the riprap will be removed. Areas in which riprap has been displaced to expose the channel subgrade will be repaired with rock meeting the as-built specifications in the completion report and material restricting the channel capacity will be removed. Channels will be maintained to convey flows for the designed purpose(s) and as-built function(s) described in Section 2.</p>	
2. Channel AYC-2 Concrete Integrity, Sedimentation, Stilling Basin, Culvert Integrity:	
<p>Inspection/Performance Standard – Concrete-lined channel will be inspected for cracking, settling, sediment build up, capacity restriction, and adjacent erosional problems. Sediment and material in excess of one inch in depth will be removed. Cracks greater than one-quarter inch in width will be sealed or repaired. Damaged sections (that do not convey the design flow), will be repaired or replaced.</p> <p>Culvert will be inspected for damage, capacity restriction, and adjacent erosional problems. Damaged culverts will be repaired or replaced. Erosion under or around the culvert will be repaired. Rock greater than two inches will be removed or flushed from culverts. Culvert and channel will be maintained to convey flow for the designed purpose(s) and as-built function(s) described in Section 2.</p>	
3. Nugget Gulch Outlet @ AYC-1, Headcutting /Gabion Integrity:	
<p>Inspection/Performance Standard – Gabions will be inspected for structural integrity. Damaged baskets will be repaired. Erosion under or around the gabions will be repaired. Gabions will be maintained for the designed purpose(s) and as-built function(s) described in Section 2.</p>	
Suggested Maintenance:	
Maintenance Performed:	
Notes/Comments:	
<div style="display: flex; justify-content: space-between;"> <div>Inspector's Signature_____</div> <div>Owner's Signature_____</div> <div>Date_____</div> </div>	

Resurrection Mining Company	OPERABLE UNIT 4 (OU4) INSPECTION AND MONITORING REPORT
<u>North Mike</u>	
1. Erosion/Scour in Revegetation areas:	
<p>Inspection/Performance Standard – Areas revegetated during remedial construction will be inspected for erosional stability and vegetative cover. Erosion rills or gullies in excess of two inches deep in revegetated areas will be repaired. In addition, vegetative areas will be inspected for the presence of bareground areas. Areas void of or containing little vegetation which are larger in area than 100 ft² will be considered bareground areas. Identified bareground areas will be assessed for agronomic conditions, and any necessary soil amendments identified by the agronomic assessment will be completed and the area will be reseeded during next spring or fall planting season. Vegetated areas will be maintained for the intended purpose described in Section 2.</p>	
2. Erosion at Toe of Slope/Buttress wall:	
<p>Inspection/Performance Standard – Buttress wall will be inspected to ensure that it is intact and preventing erosion. Missing rock will be replaced as required to maintain toe integrity. Eroded areas will be repaired and buttress wall will be maintained for the designed purpose(s) and as-built function as describe in Section 2.</p>	
Suggested Maintenance:	
Maintenance Performed:	
Notes/Comments:	
<u>Colorado No. 2</u>	
1. Cover Rock Integrity:	
<p>Inspection/Performance Standard – Cover rock will be inspected to ensure that it is intact and preventing erosion. Areas in which rock has been displaced that causes the cover subgrade to be exposed will be replaced with rock meeting the design specifications to maintain cover integrity. Erosion rills or gullies will be repaired and the cover rock will be maintained for the intended purpose described in Section 2.</p>	
2. Toe Revegetation—erosion/scour:	
<p>Inspection/Performance Standard – Areas revegetated during remedial construction will be inspected for erosional stability and vegetative cover. Erosion rills or gullies in excess of two inches deep in revegetated areas will be repaired. In addition, vegetative areas will be inspected for the presence of bareground areas. Areas void of or containing little vegetation which are larger in area than 100 ft² will be considered bareground areas. Identified bareground areas will be assessed for agronomic conditions, and any necessary soil amendments identified by the agronomic assessment will be completed and the area will be reseeded during next spring or fall planting season. Vegetated areas will be maintained for the intended purpose described in Section 2.</p>	
3. Channel NGC-3A, B, & C Riprap/Erosion Block Channel Integrity:	
<p>Inspection/Performance Standard – Riprap-lined channels will be inspected for erosion, uniformity of rock placement, and capacity restriction. Sediment and material in excess of two inches in depth above the top of the riprap will be removed. Areas in which riprap has been displaced to expose the channel subgrade will be repaired with rock meeting the as-built specifications in the completion report. Channel constructed using erosion control blocks will be inspected for eroded or broken blocks and erosion of the channel banks. Sediment and material in excess of one inch in depth above the top of the blocks will be removed. Damaged or eroded blocks which cause the channel subgrade to be exposed will be repaired or replaced with blocks meeting the as-built specifications in the completion report. Channels will be maintained to convey flows for the designed purpose(s) and as-built function(s) described in Section 2.</p>	
Suggested Maintenance:	
Maintenance Performed:	
Notes/Comments:	
Inspector's Signature_____	Owner's Signature_____ Date_____

Resurrection Mining Company	OPERABLE UNIT 4 (OU4) INSPECTION AND MONITORING REPORT
Nugget Gulch	
1. Channel NGC-5 Overall Channel Integrity, Margin Erosion, Culvert:	
<p>Inspection/Performance Standard – Channels will be inspected for eroded or broken blocks and erosion of the channel banks. Sediment and material in excess of one inch in depth above the top of the blocks will be removed. Damaged or eroded blocks which cause the channel subgrade to be exposed will be repaired or replaced with blocks meeting the as-built specifications in the completion report.</p> <p>Culvert will be inspected for damage, capacity restriction, and adjacent erosional problems. Damaged culvert will be repaired or replaced. Erosion under or around the culvert will be repaired. Rock greater than two inches will be removed or flushed from culvert. Culvert and channel will be maintained to convey flows for the designed purpose(s) and as-built function(s) described in Section 2.</p>	
2. Channel NGC-1 Concrete Integrity, Culvert Integrity:	
<p>Inspection/Performance Standard– Concrete-lined channel will be inspected for cracking, settling, sediment build up, capacity restriction, and adjacent erosional problems. Sediment and material in excess of one inch in depth will be removed. Cracks greater than one-quarter inch in width will be sealed or repaired. Damaged sections (that do not convey the design flow), will be repaired or replaced.</p> <p>Culvert will be inspected for damage, capacity restriction, and adjacent erosional problems. Damaged culvert will be repaired or replaced. Erosion under or around the culvert will be repaired. Rock greater than two inches will be removed or flushed from culvert. Culvert and channel will be maintained to convey flows for the designed purpose(s) and as-built function(s) described in Section 2.</p>	
Suggested Maintenance:	
Maintenance Performed:	
Notes/Comments:	
<div style="display: flex; justify-content: space-between;"> <div>Inspector's Signature_____</div> <div>Owner's Signature_____</div> <div>Date_____</div> </div>	

Resurrection Mining Company	OPERABLE UNIT 4 (OU4) INSPECTION AND MONITORING REPORT
<u>Printer Girl</u>	
1. Channel RSC-5 Riprap, Sedimentation:	
<p>Inspection/Performance Standard – Riprap-lined channel will be inspected for erosion, uniformity of rock placement, and capacity restriction. Sediment and material in excess of two inches in depth above the top of the riprap will be removed. Areas in which riprap has been displaced to expose the channel subgrade will be repaired with rock meeting the as-built specifications in the completion report.</p> <p>Reno mattresses and gabions will be inspected for structural integrity. Damaged mattresses and baskets will be repaired. Erosion under or around the mattresses or gabions will be repaired. Channel will be maintained to convey flow for the designed purpose(s) and as-built function(s) described in Section 2.</p>	
2. Channel PGC-1 Concrete Integrity, Sedimentation, Culvert Integrity:	
<p>Inspection/Performance Standard – Concrete-lined channel will be inspected for cracking, settling, sediment build up, capacity restriction, and adjacent erosional problems. Sediment and material in excess of one inch in depth will be removed. Cracks greater than one-quarter inch in width will be sealed or repaired. Damaged sections (that do not convey the design flow), will be repaired or replaced.</p> <p>Culvert will be inspected for damage, capacity restriction, and adjacent erosional problems. Damaged culvert will be repaired or replaced. Erosion under or around the culvert will be repaired. Rock greater than two inches will be removed or flushed from culvert. Culvert and channel will be maintained to convey flows for the designed purpose(s) and as-built function(s) described in Section 2.</p>	
3. Channel PGC-2 Riprap, Sedimentation, Culvert Integrity:	
<p>Inspection/Performance Standard – Riprap-lined channel will be inspected for erosion, uniformity of rock placement, and capacity restriction. Sediment and material in excess of two inches in depth above the top of the riprap will be removed. Areas in which riprap has been displaced to expose the channel subgrade will be repaired with rock meeting the as-built specifications in the completion report.</p> <p>Culvert will be inspected for damage, capacity restriction, and adjacent erosional problems. Damaged culvert will be repaired or replaced. Erosion under or around the culvert will be repaired. Rock greater than two inches will be removed or flushed from culvert. Culvert and channel will be maintained to convey flows for the designed purpose(s) and as-built function(s) described in Section 2.</p>	
Suggested Maintenance:	
Maintenance Performed:	
Notes/Comments:	
<div style="display: flex; justify-content: space-between;"> <div>Inspector's Signature_____</div> <div>Owner's Signature_____</div> <div>Date_____</div> </div>	

Resurrection Mining Company	OPERABLE UNIT 4 (OU4) INSPECTION AND MONITORING REPORT
<u>Agwalt</u>	
1. Channel A Concrete Integrity, Sedimentation, Sediment Retention Structure:	
Inspection/Performance Standard – Concrete-lined channel will be inspected for cracking, settling, sediment build up, capacity restriction, and adjacent erosional problems. Sediment and material in excess of one inch in depth will be removed. Cracks greater than one-quarter inch in width will be sealed or repaired. Damaged sections (that do not convey the design flow), will be repaired or replaced. Channel will be maintained to convey flows for the designed purpose(s) and as-built function(s) described in Section 2.	
2. Channel B Concrete Integrity, Sedimentation:	
Inspection/Performance Standard – Concrete-lined channel will be inspected for cracking, settling, sediment build up, capacity restriction, and adjacent erosional problems. Sediment and material in excess of one inch in depth will be removed. Cracks greater than one-quarter inch in width will be sealed or repaired. Damaged sections (that do not convey the design flow), will be repaired or replaced. Channel will be maintained to convey flows for the designed purpose(s) and as-built function(s) described in Section 2.	
3. Portal Collection Pipe Outlet:	
Inspection/Performance Standard – Portal/interceptor drains and collection pipes will be inspected to ensure that they are free-flowing and that there is no observed flow emanating from the portal collection systems or interceptor drains other than the designed outlets. Drains and pipes determined to be obstructed or plugged will be cleared and will be maintained for the intended purposes as describe in Section 2.	
Suggested Maintenance	
Maintenance Performed:	
Notes/Comments:	
<div style="display: flex; justify-content: space-between;"> <div>Inspector's Signature_____</div> <div>Owner's Signature_____</div> <div>Date_____</div> </div>	

Resurrection Mining Company	OPERABLE UNIT 4 (OU4) INSPECTION AND MONITORING REPORT	
<u>Garibaldi</u>		
1. Concrete Channel GWC-1 & GWC-2, Concrete Integrity, Sedimentation, Culvert Integrity:		
<p>Inspection/Performance Standard – Concrete-lined channels will be inspected for cracking, settling, sediment build up, capacity restriction, and adjacent erosional problems. Sediment and material in excess of one inch in depth will be removed. Cracks greater than one-quarter inch in width will be sealed or repaired. Damaged sections (that do not convey the design flow), will be repaired or replaced.</p> <p>Culvert will be inspected for damage, capacity restriction, and adjacent erosional problems. Damaged culvert will be repaired or replaced. Erosion under or around the culvert will be repaired. Rock greater than two inches will be removed or flushed from culvert. Culvert and channels will be maintained to convey flows for the designed purpose(s) and as-built function(s) described in Section 2.</p>		
2. Riprap Channel RSC-1 Riprap Integrity, Sedimentation:		
<p>Inspection/Performance Standard – Riprap-lined channel will be inspected for erosion, uniformity of rock placement, and capacity restriction. Sediment and material in excess of two inches in depth above the top of the riprap will be removed. Areas in which riprap has been displaced and exposed the channel subgrade will be repaired with rock meeting the as-built specifications in the completion report. Channel will be maintained to convey flows for the designed purpose(s) and as-built function(s) described in Section 2.</p>		
3. Vegetated Ditch 1, Sedimentation, Erosion:		
<p>Inspection/Performance Standard – Grass-lined channel will be inspected for erosion/scour, sediment collection, and vegetative cover. Sediment and material in excess of two inches in depth will be removed. Scour deeper than two inches below the base of the channel or rills and/or gullies on the channel sideslopes deeper than two inches in depth will be repaired. Channel will be maintained to convey flows for the designed purpose(s) and as-built function(s) described in Section 2.</p>		
4. Concrete Ditch 2, Concrete Integrity, Sedimentation:		
<p>Inspection/Performance Standard – Concrete-lined channel will be inspected for cracking, settling, sediment build up, capacity restriction, and adjacent erosional problems. Sediment and material in excess of one inch in depth will be removed. Cracks greater than one-quarter inch in width will be sealed or repaired. Damaged sections (that do not convey the design flow), will be repaired or replaced. Channel will be maintained to convey flows for the designed purpose(s) and as-built function(s) described in Section 2.</p>		
5. Concrete Ditch 3, Concrete Integrity, Sedimentation:		
<p>Inspection/Performance Standard – Concrete-lined channel will be inspected for cracking, settling, sediment build up, capacity restriction, and adjacent erosional problems. Sediment and material in excess of one inch in depth will be removed. Cracks greater than one-quarter inch in width will be sealed or repaired. Damaged sections (that do not convey the design flow), will be repaired or replaced. Channel will be maintained to convey flows for the designed purpose(s) and as-built function(s) described in Section 2.</p>		
Suggested Maintenance		
Maintenance Performed:		
Notes/Comments:		
Inspector's Signature _____	Owner's Signature _____	Date _____

Resurrection Mining Company	OPERABLE UNIT 4 (OU4) INSPECTION AND MONITORING REPORT
Garibaldi (continued)	
6. Concrete Ditch 4, Concrete Integrity, Sedimentation, Riprap Outlet Apron:	
<p>Inspection/Performance Standard – Concrete-lined channel will be inspected for cracking, settling, sediment build up, capacity restriction, and adjacent erosional problems. Sediment and material in excess of one inch in depth will be removed. Cracks greater than one-quarter inch in width will be sealed or repaired. Damaged sections (that do not convey the design flow), will be repaired or replaced. Channel will be maintained to convey flows for the designed purpose(s) and as-built function(s) described in Section 2.</p>	
7. Portal/Interceptor Drains, Free Flow:	
<p>Inspection/Performance Standard – Portal/interceptor drains and collection pipes will be inspected to ensure that they are free-flowing and that there is no observed flow emanating from the portal collection systems or interceptor drains other than the designed outlets. Drains and pipes determined to be obstructed or plugged will be cleared and will be maintained for the intended purposes as describe in Section 2.</p>	
Suggested Maintenance:	
Maintenance Performed:	
Notes/Comments:	
Mab	
1. Erosion/Scour in Revegetation Area:	
<p>Inspection/Performance Standard – Areas revegetated during remedial construction will be inspected for erosional stability and vegetative cover. Erosion rills or gullies in excess of two inches deep in revegetated areas will be repaired. In addition, vegetative areas will be inspected for the presence of bareground areas. Areas void of or containing little vegetation which are larger in area than 100 ft² will be considered bareground areas. Identified bareground areas will be assessed for agronomic conditions, and any necessary soil amendments identified by the agronomic assessment will be completed and the area will be reseeded during next spring or fall planting season. Vegetated areas will be maintained for the intended purpose described in Section 2.</p>	
2. Cover Rock:	
<p>Inspection/Performance Standard – Cover rock will be inspected to ensure that it is intact and preventing erosion. Areas in which rock has been displaced that causes the cover subgrade to be exposed will be replaced with rock meeting the design specifications to maintain cover integrity. Erosion rills or gullies will be repaired and the cover rock will be maintained for the intended purpose described in Section 2.</p>	
Suggested Maintenance:	
Maintenance Performed:	
Notes/Comments:	
Inspection Summary	
Inspector's _____ Owner's _____ Date _____ Signature _____ Signature _____	

Resurrection Mining Company	OPERABLE UNIT 8 (OU8) INSPECTION AND MONITORING
Date:	
Inspected By:	
Weather:	
General Notes/Comments:	
<u>FTS-6</u>	
1. Overall Channel Integrity:	
Inspection/Performance Standard – Reno mattresses and gabions will be inspected for structural integrity. Damaged mattresses and baskets will be repaired. Erosion under or around the mattresses or gabions will be repaired. Channels will be maintained to convey flows for the designed purpose(s) and as-built function(s) described in Section 2.	
2. Erosion/Scour of Overbank/Floodplain:	
Inspection/Performance Standard – Revegetated overbanks will be inspected for erosional stability and vegetative cover. Erosion rills or gullies in excess of two inches deep in revegetated areas will be repaired. Channel banks will be inspected for erosional stability. Eroded areas will be repaired. Channel banks will be maintained for the designed purpose(s) and as-built function described in Section 2.	
3. OU1/Apache Channel Transitions:	
Inspection/Performance Standard – Channel banks and the transition will be inspected for erosional stability. Eroded areas will be repaired. Channel banks and the transition will be maintained for the designed purpose(s) and as-built function described in Section 2.	
Suggested Maintenance:	
Maintenance Performed:	
Notes/Comments:	
<u>FTS-3</u>	
1. Overall Channel Integrity:	
Inspection/Performance Standard – Reno mattresses and gabions will be inspected for structural integrity. Damaged mattresses and baskets will be repaired. Erosion under or around the mattresses or gabions will be repaired. Channels will be maintained to convey flows for the designed purpose(s) and as-built function(s) described in Section 2.	
2. Erosion/Scour of Overbank/Floodplain/Streambank Riprap/Non-Res Soils Reveg Areas:	
Inspection/Performance Standard – Riprap-lined channel banks will be inspected for erosion and uniformity of rock placement. Riprap will be replaced or added as necessary. Revegetated overbanks will be inspected for erosional stability and vegetative cover. Erosion rills or gullies in excess of two inches deep in revegetated areas will be repaired. Channel banks will be maintained for the designed purpose(s) and as-built function as described in Sect. 2.	
Suggested Maintenance:	
Maintenance Performed:	
Notes/Comments:	
Inspector's Signature _____	
Owner's Signature _____ Date _____	

Resurrection Mining Company	OPERABLE UNIT 8 (OU8) INSPECTION AND MONITORING
<u>California Gulch Near the Ski Club</u>	
1. Embankment Riprap:	
Inspection/Performance Standard – Riprap-lined berms will be inspected for erosion and uniformity of rock placement. Areas in which riprap has been displaced and exposed the berm subgrade will be repaired with rock meeting the as-built specifications in the completion report. Berms will be maintained for the designed purpose(s) and as-built function(s) described in Section 2.	
2. Erosion/Scour of Revegetated Embankment:	
Inspection/Performance Standard – Revegetated areas will be inspected for erosional stability and vegetative cover. Erosion rills or gullies in excess of two inches deep in revegetated areas will be repaired. Vegetated areas will be maintained for the designed purpose(s) and as-built function described in Section 2.	
Suggested Maintenance:	
Maintenance Performed:	
Notes/Comments:	
<u>FTS-1</u>	
1. Sideslope Riprap:	
Inspection/Performance Standard – Riprap-lined banks will be inspected for erosion and uniformity of rock placement. Areas in which riprap has been displaced and exposed the bank subgrade will be repaired with rock meeting the as-built specifications in the completion report. Banks will be maintained for the designed purpose(s) and as-built function(s) described in Section 2.	
2. Erosion/Scour of Revegetated Surface:	
Inspection/Performance Standard – Areas revegetated during remedial construction will be inspected for erosional stability and vegetative cover. Erosion rills or gullies in excess of two inches deep in revegetated areas will be repaired. In addition, vegetative areas will be inspected for the presence of bareground areas. Areas void of or containing little vegetation which are larger in area than 100 ft ² will be considered bareground areas. Identified bareground areas will be assessed for agronomic conditions, and any necessary soil amendments identified by the agronomic assessment will be completed and the area will be reseeded during next spring or fall planting season. Vegetated areas will be maintained for the intended purpose described in Section 2.	
Suggested Maintenance:	
Maintenance Performed:	
Notes/Comments:	
Inspector's Signature_____	Owner's Signature_____ Date_____

Resurrection Mining Company	OPERABLE UNIT 8 (OU8) INSPECTION AND MONITORING
<u>FTS-2</u>	
1. Embankment Riprap:	
Inspection/Performance Standard – Riprap-lined banks will be inspected for erosion and uniformity of rock placement. Areas in which riprap has been displaced and exposed the bank subgrade will be repaired with rock meeting the as-built specifications in the completion report. Banks will be maintained for the designed purpose(s) and as-built function(s) described in Section 2.	
2. Erosion/Scour of Revegetated Berm Areas:	
Inspection/Performance Standard – Areas revegetated during remedial construction will be inspected for erosional stability and vegetative cover. Erosion rills or gullies in excess of two inches deep in revegetated areas will be repaired. In addition, vegetative areas will be inspected for the presence of bareground areas. Areas void of or containing little vegetation which are larger in area than 100 ft ² will be considered bareground areas. Identified bareground areas will be assessed for agronomic conditions, and any necessary soil amendments identified by the agronomic assessment will be completed and the area will be reseeded during next spring or fall planting season. Vegetated areas will be maintained for the intended purpose described in Section 2.	
Suggested Maintenance:	
Maintenance Performed:	
Notes/Comments:	
<u>California Gulch Near Airport Gulch</u>	
1. Embankment Riprap:	
Inspection/Performance Standard – Riprap-lined banks and berms will be inspected for erosion and uniformity of rock placement. Areas in which riprap has been displaced and exposed the bank or berm subgrade will be repaired with rock meeting the as-built specifications in the completion report. Banks and berms will be maintained for the designed purpose(s) and as-built function(s) described in Section 2.	
2. Low-flow Channel Integrity:	
Inspection/Performance Standard – Channel will be inspected for sediment build up, capacity restriction, and adjacent erosional problems. Sediment and material restricting the channel capacity will be removed, as necessary. Channels will be maintained to convey flows for the designed purpose(s) and as-built function described in Section 2.	
Suggested Maintenance:	
Maintenance Performed:	
Notes/Comments:	
<div style="display: flex; justify-content: space-between;"> <div>Inspector's Signature_____</div> <div>Owner's Signature_____</div> <div>Date_____</div> </div>	

Resurrection Mining Company	OPERABLE UNIT 8 (OU8) INSPECTION AND MONITORING
Lower FTS-8	
1. Embankment Riprap:	
Inspection/Performance Standard – Riprap-lined banks and berms will be inspected for erosion and uniformity of rock placement. Areas in which riprap has been displaced, and exposed the bank or berm subgrade, will be repaired with rock meeting the as-built specifications in the completion report. Banks and berms will be maintained for the designed purpose(s) and as-built function(s) described in Section 2.	
Suggested Maintenance:	
Maintenance Performed:	
Notes/Comments:	
2. Erosion/Scour of Revegetated Areas:	
Inspection/Performance Standard – Areas revegetated during remedial construction will be inspected for erosional stability and vegetative cover. Erosion rills or gullies in excess of two inches deep in revegetated areas will be repaired. In addition, vegetative areas will be inspected for the presence of bareground areas. Areas void of or containing little vegetation which are larger in area than 100 ft ² will be considered bareground areas. Identified bareground areas will be assessed for agronomic conditions, and any necessary soil amendments identified by the agronomic assessment will be completed and the area will be reseeded during next spring or fall planting season. Vegetated areas will be maintained for the intended purpose described in Section 2.	
Suggested Maintenance:	
Maintenance Performed:	
Notes/Comments:	
Non-Residential Soils	
1. Erosion/Scour Within Revegetation Area:	
Inspection/Performance Standard – Areas revegetated during remedial construction will be inspected for erosional stability and vegetative cover. Erosion rills or gullies in excess of two inches deep in revegetated areas will be repaired. In addition, vegetative areas will be inspected for the presence of bareground areas. Areas void of or containing little vegetation which are larger in area than 100 ft ² will be considered bareground areas. Identified bareground areas will be assessed for agronomic conditions, and any necessary soil amendments identified by the agronomic assessment will be completed and the area will be reseeded during next spring or fall planting season. Vegetated areas will be maintained for the intended purpose described in Section 2.	
Suggested Maintenance/Notes/Comments:	
Maintenance Performed:	
Notes/Comments:	
Inspection Summary	
Inspector's Signature _____	
Owner's Signature _____ Date _____	

Resurrection Mining Company	OPERABLE UNIT 10 (OU10) INSPECTION AND MONITORING
Date:	
Inspected By:	
Weather:	
General Notes/Comments:	
<u>East Diversion Channel</u>	
1. Channel Integrity, Scour/Sedimentation :	
Inspection/Performance Standard – Grass-lined channel will be inspected for erosion/scour, sediment collection, and vegetative cover. Sediment and material in excess of two inches in depth will be removed. Scour deeper than two inches below the base of the channel or rills and/or gullies on the channel sideslopes deeper than two inches in depth will be repaired. Channel will be maintained to convey flows for the designed purpose(s) and as-built function(s) described in Section 2.	
Suggested Maintenance:	
Maintenance Performed:	
Notes/Comments:	
<u>South Diversion Ditch</u>	
1. Channel Riprap Integrity, Sedimentation:	
Inspection/Performance Standard – Riprap-lined channel will be inspected for erosion, uniformity of rock placement, and capacity restriction. Sediment and material in excess of two inches in depth above the top of the riprap will be removed. Areas in which riprap has been displaced and exposed the channel subgrade will be repaired with rock meeting the as-built specifications in the completion report. Channel will be maintained to convey flows for the designed purpose(s) and as-built function(s) described in Section 2.	
2. Channel Margin Stability:	
Inspection/Performance Standard – Riprap-lined banks will be inspected for erosion and uniformity of rock placement. Areas in which riprap has been displaced and exposed the bank subgrade will be repaired with rock meeting the as-built specifications in the completion report. Channels will be maintained to convey flows for the designed purpose(s) and as-built function(s) described in Section 2.	
Suggested Maintenance:	
Maintenance Performed:	
Notes/Comments:	
Inspector's Signature_____	Owner's Signature_____ Date_____

Resurrection Mining Company	OPERABLE UNIT 10 (OU10) INSPECTION AND MONITORING
<u>Drop Channel</u>	
1. Overall Channel Integrity:	
Inspection/Performance Standard – Channel constructed using erosion control blocks will be inspected for eroded or broken blocks and erosion of the channel banks. Sediment and material in excess of one inch in depth above the top of the blocks will be removed. Damaged or eroded blocks which cause the channel subgrade to be exposed will be repaired or replaced with blocks meeting the as-built specifications in the completion report to maintain channel integrity. Channel will be maintained to convey flows for the designed purpose(s) and as-built function(s) described in Section 2.	
Suggested Maintenance	
Maintenance Performed:	
Notes/Comments:	
<u>Reconstructed Lower Channel</u>	
1. Channel Riprap Integrity:	
Inspection/Performance Standard - Riprap-lined channel will be inspected for erosion, uniformity of rock placement, and capacity restriction. Sediment and material in excess of two inches in depth above the top of the riprap will be removed. Areas in which riprap has been displaced and exposed the channel subgrade will be repaired with rock meeting the as-built specifications in the completion report. Channel will be maintained to convey flows for the designed purpose(s) and as-built function(s) described in Section 2.	
2. Channel Margins, Erosion/Scour:	
Inspection/Performance Standard – Channel margins will be inspected for erosional stability. Eroded areas in excess of six inches deep will be repaired. Channel margin will be maintained for the designed purpose(s) and as-built function (s) as described in Section 2.	
Suggested Maintenance:	
Maintenance Performed:	
Notes/Comments:	
<div style="display: flex; justify-content: space-between;"> <div>Inspector's Signature_____</div> <div>Owner's Signature_____</div> <div>Date_____</div> </div>	

Resurrection Mining Company	OPERABLE UNIT 10 (OU10) INSPECTION AND MONITORING
<u>Seep Collection System</u>	
1. Interceptor Pipe at base of Tailing Dam, Flowing:	
Inspection/Performance Standard – Check that the toe drain is flowing three times per week. Maintain the tailing toe collection system for the designed purpose and as-built function as described in Sections 2 and 3.	
2. Storage Tank and Pumpback System, Floor Seepage Collection, Sump System in Pumphouse:	
Inspection/Performance Standard – Check the pumphouse and equipment three times per week. Maintain the pumpback facilities to pump collected water to the Surge Pond as described in Section 2.	
3. Interceptor Trench Pump Working/Flowing:	
Inspection/Performance Standard – Check the operational status of the trench pumps three times per week. Maintain the trench collection system for the designed purpose and as-built function as described in Sections 2 and 3.	
4. Surface Seepage/OG1TMW3 Well Sampling and Analysis	
Inspection/Performance Standard – Check the area around the pumphouse and immediately (50 feet) down gradient of the interceptor pipe and trench for surface seeps on a weekly basis. Maintain the trench and tailing toe collection system to prevent seeps.	
Monitoring well OG1TMW3 will be sampled annually either during the month of September or October, a sample collection will be analyzed for total metals (Zinc, Cadmium) by an outside laboratory. Should metals analytical results exceed the previous analytical results for either metal in excess of 20%, an investigation will be conducted to further evaluate the performance and effectiveness of the seep collection systems as described in Section 3.	
Suggested Maintenance:	
Maintenance Performed:	
Notes/Comments:	
<u>Access Road Gates</u>	
1. Upper Gate:	
Inspection/Performance Standard – Maintain in working order to allow access and exclude unauthorized traffic.	
2. Lower Gate:	
Inspection/Performance Standard – Maintain in working order to allow access and exclude unauthorized traffic.	
Suggested Maintenance:	
Maintenance Performed:	
Notes/Comments:	
<u>Inspection Summary</u>	
Inspector's Signature_____	Owner's Signature_____ Date_____

APPENDIX B
TO OU4, OU8 AND OU10
OPERATIONS AND MAINTENANCE PLAN
LOCATION FIGURES